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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/773,878      | 02/05/2004  | Philip W. Wyers      | 2030                | 7410             |

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EXAMINER

GALL, LLOYD A

ART UNIT PAPER NUMBER

3676

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/773,878

Applicant(s)

WYERS, PHILIP W.

Examiner

Lloyd A. Gall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

In response to the amendment filed on February 13, 2006, the following is a non-Final rejection which relies on additional prior art. It is regretted that this prior art was not relied upon earlier.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5-8, 12-15, 18, 19, 21, 22, 30-32 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyers (832) in view of either Heald et al (543), Heald (029), or Recknagel et al.

Wyers teaches in figs. 3-11, a hitch pin shackle having a shank 24, a stop portion 26 of a frustum shape, a latch portion 121, 122, an outer surface margin 124, 126 which is sealed by O-ring seal 66, a locking head 78, 90, 100 having a locking mechanism (key plug) therein, the locking head having an entryway 102 within portion 100 to mate with the latch portion, the locking mechanism being key controlled between locked and unlocked states which allows the latch portion to be retained or released. The hitch pin is used with a hitch bar 15 and hitch receiver 14 having aligned holes as seen in fig. 2. Heald et al (543) teaches a stiff yet resilient cover portion 30 which conforms to the shape of the locking head 22 and engages the locking head, wherein the cover also includes an inwardly extending flange portion 40 or 42 to define an opening edge and to

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seal the shank 44 or 46, as set forth in column 2, lines 64-66. Heald (029) teaches a stiff yet resilient cover 30, 58 which conforms to the shape of the locking head (padlock body) and includes an inwardly extended flange 68 and a seal 76 as seen in figs. 8 and 9 to seal the shackle 78. Recknagel teaches in figures 7A and 7B and in paragraph [0031], a cover 130 which surrounds and engages the periphery of a cylindrical locking head 50, and provides a hole 134 where the shank 30 is inserted into the lock 50, and a seal is provided at the hole to seal the lock head. It would have been obvious to modify the locking device of Wyers, by providing a sealing cover portion which mechanically engages and conforms to the outer shape of the locking head in confronting relationship thereto, and provides an inwardly extending flange portion and seal where the shank is inserted into the locking head, in place of or in addition to the seal 66 of Wyers, in view of the teaching of either Heald et al (543), Heald (029) or Recknagel et al, the motivation being to also seal and protect the outer periphery of the locking head of Wyers, to prevent scratching and damage thereto when in use.

Claims 3, 4 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyers in view of either Heald et al (543), Heald (029) or Recknagel et al as applied to claims 2 and 19 above, and further in view of Chen (316).

Chen teaches a cap 16, 18 integral with a member 11. It would have been obvious to provide an integral cap with the locking head cover of Wyers as modified by either Heald et al, Heald or Recknagel et al, in view of the teaching of Chen (316), the motivation being to seal the key slot of the locking head of Wyers.

Claims 16, 26-28 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyers in view of either Heald et al, Heald or Recknagel et al as applied to claims 1, 18 and 30 above, and further in view of Chen (086).

Chen teaches a two-flanged stop portion cover 413 over a stop portion 41. It would have been obvious to provide a cover over the stop of Wyers, in view of the teaching of Chen, the motivation being to protect the stop from the elements.

Claims 17, 29 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyers in view of either Heald et al, Heald or Recknagel et al, and Chen (086) as applied to claims 16, 28 and 34 above, and further in view of an additional teaching of Heald (029).

Heald teaches a stiff yet resilient sealing cover 30, as set forth above. It would have been obvious to modify the stop portion cover of Wyers as modified by Chen to be of a stiff yet resilient material, in view of the teaching of Heald (029), the motivation being to optimize its durability.

Claims 9-11, 23-25 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyers in view of either Heald et al, Heald or Recknagel et al as applied to claims 1, 8, 18, 22 and 30 above, and further in view of Lee (181).

As seen in figs. 6 and 7, Lee teaches an opening to receive the shank 70 as being formed with a truncated profile as well as a groove to receive a seal. It would have been obvious to modify the inwardly extending flanged opening of Wyers as modified by either Heald et al, Heald or Recknagel et al, such that it includes a truncated shape and

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an opening to receive an O-ring seal, in view of the teaching of Lee, the motivation being to allow a replaceable seal to be applied when needed.

The majority of applicant's arguments with respect to claims 1-36 have been considered but are moot in view of the new ground(s) of rejection. The suggestion for combining the references is found in the secondary references to Heald et al, Heald and Recknagel, which teach that it is well known to protect the outer periphery of the locking head, in addition to sealing the shank receiving opening in the locking head. The motivation for combining the references is set forth in the above rejections. Also, the above rejections set forth that it would have been obvious to provide a sealing cover in place or, or in addition to the O-ring seal of Wyers, in view of the teaching of Heald et al, Heald or Recknagel.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen (914) also teaches seals 64 in shackle receiving openings.

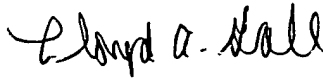
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lloyd A. Gall whose telephone number is 571-272-7056. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LG LG  
April 27, 2006

  
Lloyd A. Galli  
**Primary Examiner**